

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

1H17
Revision 4
AIR & SPACE
18A
March 17, 1990

TYPE CERTIFICATE DATA SHEET NO. 1H17

This data sheet which is part of type certificate No. 1H17 prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

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| Type Certificate Holder | Air & Space America, Inc. 4460 Shemwell Lane Paducah, Kentucky 42003 |
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I - Model 18A, 2 PCL Gyroplane, Approved May 4, 1965

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| Engine | Lycoming 0-360-A1D (carburetor setting No. 10-3878) |
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| Fuel | 100 minimum grade aviation gasoline |
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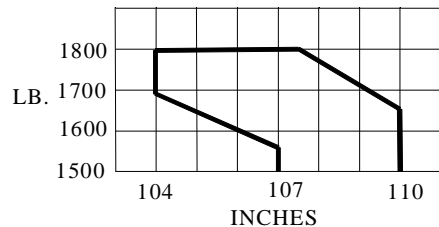
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| Engine limits | For all operations, 2700 r.p.m. (180 hp.) |
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| Propeller and propeller limits | (a) Hartzell HC-92ZK-8L/L8447A-8 Pitch settings at 30 in. sta.: low 11°, high 28° Diameter: not over 76 in., not under 74.5 in. (b) Hartzell Governor F-2 |
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| Rotor limits | Maximum 370 r.p.m. |
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| Airspeed limits | Never exceed 84 m.p.h. (CAS) at 1600 lb. Never exceed 97 m.p.h. (CAS) at 1800 lb. |
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| C.G. range | (+104.0) to (+107.5) at 1800 lb. (+104.0) to (+109.2) at 1700 lb. (+105.0) to (+110.0) at 1650 lb. (+107.0) to (+110.0) at 1550 lb. or less Straight line variation between points given |
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| Empty wt. C.G. range | None |
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| Maximum weight | 1800 lb. |
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| No. of seats | 2 (1 at +52, 1 at +83) |
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| Maximum baggage | 100 lb. (+113) |
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| Fuel capacity | 28 gal. (+110) |
| Oil capacity | 8 qt. (+142) See NOTE 1 for data on system fuel and oil. |
| Rotor blade and control movements | For rigging information refer to Maintenance Manual. |
| Serial Nos. eligible | 18-6 and up |
| Datum | 109.0 inches forward of rotor centroid |
| Leveling Means | Door sill |
| Certification basis | Part 6 of the Civil Air Regulations effective December 20, 1956 as amended by 6-1 thru 6-4; design conditions in FAA letter of July 6, 1960 to Umbaugh Aircraft amended June 15, 1965; flight conditions in Umbaugh Aircraft Report UER 18-219 of July 12, 1961, and the following exemptions: No. 177 from compliance with CAR 6.604(f) concerning installation of oil temperature warning device in main rotor gear box. No. 183 from compliance with CAR 6.112 (a) as to angle of climb requirements. Type Certificate No. 1H17 issued September 12, 1961. Application for Type Certificate dated March 9, 1961. |
| Production basis | None. Prior to original certification of each gyroplane, an FAA representative must perform a detailed inspection of workmanship, materials, conformity to approved technical data and a check of flight characteristics. |
| Equipment | The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification basis) must be installed in the aircraft for certification. In addition an FAA Approved Gyroplane Flight Manual dated May 4, 1965, is required. |

NOTE 1. Current weight and balance report together with list of equipment included in certificated empty weight and loading instructions when necessary must be provided for each gyroplane at time of original certification. The certificated empty weight and corresponding C.G. locations must include unusable fuel and oil of 8 lb.

NOTE 2. The following placard must be displayed in front of an in clear view of the pilots:

"This gyroplane must be operated in compliance with the operating limitations specified in the FAA Approved Gyroplane Flight Manual."

NOTE 3. Information essential to the proper maintenance of the gyroplane is contained in the manufacturer's Maintenance Manual provided with each gyroplane. In addition, Transmission Gears, Part Numbers DS-U18-3015-1 and DS-U18-3015-2 must be visually and magnetic particle inspected every 500 hours.

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